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A flexible display unit of the present invention can be locked when wrapped around a stick of the present invention in an conventional manner, such as, for example, by a snap assembly or a Velcro® assembly integrated on a display cover of the present invention.

From the preceding description of the present invention, those having ordinary skill in the art will appreciate various advantages of the present invention. In particular, a construction of an optimal shape of a stick with minimal dimensions for purposes of achieving a highest degree of portability of the stick at minimal cost and with no relative movement among the stick components, internal and external, when a flexible display unit is being wrapped around the stick or unwrapped from around the stick.

While the embodiments of the invention disclosed herein are presently considered to be preferred, various changes and modifications can be made without departing from the spirit and scope of the invention. The scope of the invention is indicated in the appended claims, and all changes that come within the meaning and range of equivalents are intended to be embraced therein.

The invention claimed is:

1. A wrap display system, comprising:

a stick; and

a flexible display coupled to an external surface of the stick to facilitate a wrapping of the flexible display around the stick for storage and an unwrapping of the flexible display from the stick for facilitating an operation of the display, a holdout mechanism is provided for fixing the display in the operation position;

wherein the flexible display is mounted on a display cover, the display and the cover are configured to be wrapped

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around the stick to facilitate a wrapping of the flexible display, at least a portion of the display cover is permanently arranged against the stick over at least a part of its perimeter, the holdout mechanism includes at least one metal leaf spring disposed along a side edge of the display cover, the metal leaf spring is seated within a groove of the stick in response to the flexible display being wrapped around the stick, and the groove is formed on an outer surface of the stick.

2. The wrap display system of claim 1, characterized in that the flexible display includes:

a bottom layer including an organic film serving as a base;
a middle layer including organic electronics serving as an active matrix for driving images of the flexible display;
and

a top layer including an electronic ink disposed on a plastic sheet.

3. The wrap display system of claim 1, characterized in that the mounting of the flexible display on the display cover includes a positioning of the flexible display within the display cover with the flexible display being viewable through a window of the display cover.

4. The wrap display system of claim 1, characterized in that the metal leaf spring enabling an energy stable position for fixing the flexible display in the operational position relative to the stick in response to the flexible display being unwrapped from around the stick.

5. A wrap display of claim 1 in that at least a portion of the display cover is permanently wrapped around the perimeter of the stick to facilitate a wrapping of the flexible display around the stick.

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